

-What is claimed is:

- 1 1. An aqueous non-toxic environmentally safe composition to reduce or inhibit
2 corrosion, rust and scale on metal surfaces comprising effective amounts of
3 sorbic acid, salts of sorbic acid and/or derivatives thereof and a variety of
4 hydrocarbons, esters, acids, alcohols and/or saponified fatty acids or
5 combinations thereof derived from a wax.

- 1 2. The aqueous non-toxic environmentally safe composition of Claim 1 wherein
2 said effective amounts include from about 0.004 per cent beeswax to about
3 0.40 per cent beeswax, from about 0.30 per cent potassium sorbate to about
4 3.50 per cent potassium sorbate with the balance purified water, all by
5 weight.

- 1 3. The aqueous non-toxic environmentally safe composition of Claim 2 wherein
2 said effective amounts include about 0.007 per cent beeswax, about 0.325
3 per cent potassium sorbate with the balance purified water, all by weight.

- 1 4. The aqueous non-toxic environmentally safe composition of Claim 3 further
2 includes about 0.000076 per cent surfactant when used as a flash rust
3 inhibitor.

- 1 5. The aqueous non-toxic environmentally safe composition of Claim 2 further
2 includes from about 0.00007 per cent surfactant to about 2.0 per cent
3 surfactant and from about 0.009 per cent fiber to about 0.013 per cent fiber

4 to stabilize said composition for uniform or homogeneous component
5 distribution within said composition, all by weight.

1 6. The aqueous non-toxic environmentally safe composition of Claim 1 wherein
2 said composition forms a layer less than about 350 nanometers in thickness.

1 7. An aqueous non-toxic environmentally safe composition to reduce or inhibit
2 corrosion, rust and scale on metal surfaces as a flash rust inhibitor comprising
3 effective amounts of sorbic acid, salts of sorbic acid and/or derivatives thereof
4 and a variety of hydrocarbons, esters, acids, alcohols and/or saponified fatty
5 acids or combinations thereof derived from a wax.

1 8. The aqueous non-toxic environmentally safe composition of Claim 6 wherein
2 said effective amounts include from about 0.004 per cent beeswax to about
3 0.01 per cent beeswax, from about 0.30 per cent potassium sorbate to about
4 0.35 per cent potassium sorbate, with the balance purified water, all by
5 weight.

1 9. The aqueous non-toxic environmentally safe composition of Claim 8 wherein
2 said effective amounts include about 0.007 per cent beeswax, about 0.325
3 per cent potassium sorbate with the balance purified water, all by weight.

1 10. The aqueous non-toxic environmentally safe composition of Claim 9 wherein
2 said composition includes a pH of about 8.5.

1 11. The aqueous non-toxic environmentally safe composition of Claim 10 wherein
2 said composition includes conductivity of about 2.00 ms/cm.

1 12. The aqueous non-toxic environmentally safe composition of Claim 9 wherein
2 said composition includes a pH of from about 7.0 to about 10.0.

1 13. The aqueous non-toxic environmentally safe composition of Claim 12 wherein
2 said composition includes conductivity is from about 1.70 ms/cm to about
3 2.30 ms/cm.

1 14. The aqueous non-toxic environmentally safe composition of Claim 7 wherein
2 said composition forms a layer less than about 350 nanometers in thickness.

1 15. An aqueous non-toxic environmentally safe composition to reduce or inhibit
2 corrosion, rust and scale on metal surfaces as a bath or dip comprising
3 effective amounts of sorbic acid, salts of sorbic acid and/or derivatives thereof
4 and a variety of hydrocarbons, esters, acids, alcohols and/or saponified fatty
5 acids or combinations thereof derived from a was.

1 16. An aqueous non-toxic environmentally safe composition of Claim 15 wherein
2 said effective amounts includes from about 0.02 per cent beeswax to about
3 0.1 per cent beeswax, from about 2.50 per cent potassium sorbate to about
4 3.50 per cent potassium sorbate, with the balance purified water, all by
5 weight.

1 17. The aqueous non-toxic environmentally safe composition of Claim 16 wherein
2 said effective amounts includes about 0.062 per cent beeswax and about
3 2.957 per cent potassium sorbate with the balance purified water, all by
4 weight.

1 18. The aqueous non-toxic environmentally safe composition of Claim 17 wherein
2 said composition includes a pH of about 8.5.

1 19. The aqueous non-toxic environmentally safe composition of Claim 18 wherein
2 said composition includes conductivity of about 15.20 ms/cm.

1 20. The aqueous non-toxic environmentally safe composition of Claim 17 including
2 a pH of about 8.0 to about 9.0 and conductivity of from about 14.20 ms/cm to
3 about 16.20 ms/cm.

1 21. The aqueous non-toxic environmentally safe composition of Claim 15 wherein
2 composition forms a layer less than about 350 nanometers in thickness.

1 22. The aqueous non-toxic environmentally safe composition to reduce or inhibit
2 corrosion, rust and scale on metal surfaces as a paint preservative or additive
3 comprising effective amounts of sorbic acid, salts or sorbic acid and/or
4 derivatives thereof and a variety of hydrocarbons, esters, acids, alcohols
5 and/or saponified fatty acids or combinations thereof derived from a wax.

1 23. The aqueous non-toxic environmentally safe composition of Claim 22 wherein
2 said effective amounts includes from about 0.30 per cent beeswax to about

3 0.40 per cent beeswax and from about 17.00 per cent potassium sorbate to
4 about 25.00 per cent potassium sorbate, with the balance purified water, all
5 by weight.

1 24. The aqueous non-toxic environmentally safe composition of Claim 23 wherein
2 said effective amounts include about 0.350 per cent beeswax and about
3 21.035 per cent potassium sorbate with the balance purified water, all by
4 weight.

1 25. The aqueous non-toxic environmentally safe composition of Claim 24 wherein
2 said composition includes a pH of about 9.3.

1 26. The aqueous non-toxic environmentally safe composition of Claim 25 wherein
2 said composition includes a conductivity of about 70 ms/cm.

1 27. The aqueous non-toxic environmentally safe composition of Claim 24 wherein
2 said composition includes a pH of about 7.0 to about 10.0 and a conductivity
3 of from about 60 ms/cm to about 80 ms/cm.

1 28. The aqueous non-toxic environmentally safe composition of Claim 22 wherein
2 composition forms a layer less than about 350 nanometers in thickness.